



The Co-operative University of Kenya

SPECIAL / SUPPLEMENTARY EXAMINATION AUGUST -2022

**EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMPUTER
SCIENCE (YR II SEM II)**

UNIT CODE: BCIT 2218

UNIT TITLE: INTERNET APPLICATION PROGRAMMING

DATE: 1st AUGUST, 2022

TIME: 9:00 AM – 11:00 AM

INSTRUCTIONS:

- Answer question **ONE (compulsory)** and any other **TWO** questions

QUESTION ONE

(a) Write the following acronyms in full and explain their use in internet programming

- i. HTML (2 Marks)
- ii. CSS (2 Marks)
- iii. URL (2 Marks)

(b) Differentiate between

- i. HTML element and HTML attribute giving examples (2 Marks)
- ii. Container Tags and empty Tags giving examples (2 marks)
- iii. Break tag and paragraph tag (2 marks)
- iv. Inline, embedded and external CSS (2 marks)

(c) State the **FOUR** basic Html tags and use them to demonstrate the structure of a typical HTML document (3 Marks)

(d) Explain the role of each of the following web components in running a web page. these web components. Describe one of them. (4 Marks)

- i. Web Clients.
- ii. Web Servers.
- iii. Web Protocols.
- iv. Web Browsers.

(e) Given the following HTML code snippet

```
<input type="text" name="fname" placeholder=" Enter First name"/>
```

Explain the role of the following parts of these code snippet [3 marks]

- i. type="text"
- ii. name="fname"
- iii. placeholder=" Enter First name"

(f)

- i. Write HTML code to display the following on a web page [4 marks]

GENDER:
<input checked="" type="radio"/> Male
<input type="radio"/> Female
WHAT I OWN:
<input type="checkbox"/> I have a bike
<input checked="" type="checkbox"/> I have a car

- ii. Using HTML demonstrate how you can use an image as a link? (2 Marks)

QUESTION TWO

- (a) Write a JavaScript function that checks that all the required fields are filled in first (7 Marks)

Name: *

Date: - - (dd-mm-yyyy) *

**required fields*

- (b) Which of the following contains an 'anchor' tag? (1 Mark)
- The `Cuk University`
 - The department is `Computer Science Department`
 - ` computer.gif ` no image will appear here, only text
- (c) Demonstrate how you set the font size of the text in a heading and in a paragraph using style sheets (3 Marks)
- (d) Functions are used to when writing scripts. Write a JavaScript function that accepts two numeric values and then returns the product (5 Marks)
- (e) Write the SQL state for inserting items into a table indicate the names of all table columns (2 Marks)
- (f) State TWO uses of JavaScript (2 Marks)

QUESTION THREE

- (a) Write four characteristics of a poorly designed website. (4 Marks)
- (b) Create an ordered list of three items? (3 Marks)
- (c) Create a html form that consists of
- A textbox (2 Marks)
 - A set of radio buttons (2 Marks)
 - A pull-down menu (3 Marks)
- (d) Write code to
- Import external script? (2 Marks)
 - Import external style sheet? (2 Marks)
 - Generate a password input (2 Marks)

QUESTION FOUR

- (a) Differentiate between client-side and server-side scripting giving examples of such scripting languages? (3 Marks)
- (b) Write a JavaScript program that displays the current date on the web page? (4 Marks)
- (c) Pixellated images will result from (1 Mark)
- Over-enlarging a vector image
 - Rotating the contents of a vector image
 - Using large black text on a white background
 - Doubling the dimensions of a bitmap image
- (d) Which of the following is true of JPEG images? (1 Mark)
- They can hold more colours than GIF images
 - They support background transparency
 - They are not supported by Netscape or Microsoft browsers
 - They are suitable for black and white line drawings
- (e) Consider a database for the Cooperative University. (8 Marks)
- Create a table called students with the following columns:
 - Student's first name
 - Student's last name
 - Student's registration number
 - Student's course
 - Write SQL query to Select the first names of ALL students who share the same last name (2 Marks)

QUESTION FIVE

- (a) You have been assigned a task to develop the login page for a school website. Write the code that would create the form below and also the code to be used to authenticate users based on correct username and password values inside the login table under a database students. The user should be redirected to home.php on succesful login otherwise an error message should be displayed.

(12 marks)

UserName:

Password

- (b) One of the basic functionalities of HTML Frames is that you can add multiple contents at one page. However, experts assert that frames are not the best solution model. What are its disadvantages? What are the alternatives? Why? (8 Marks)